

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

APPLICANT: Daisaku Haoto et al

SERIAL NO. 10/813,538

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TITLE: PROTECTIVE COAT AND METHOD FOR MANUFACTURING THEREOF

**AMENDED SPECIFICATION PARAGRAPHS**

*Please replace the paragraph bridging pages 15 and 16 with the following amended paragraph:*

With respect to this point, more specifically the present inventors attempted to produce a protective coat under the conditions disclosed in the above US2002093285A1 using mass-production type in-line equipment after designing a production process to be applied for practical use in industry. However, a SiO<sub>x</sub>N<sub>y</sub> film as described in US2002093285A1 could not be obtained as the result, and a SiO<sub>x</sub>-formed film was obtained instead. In view of this result, after concentrated studies the present inventors reached the conclusion that when employing the manufacturing conditions disclosed in JP2002-100469A US2002093285A1 a SiO<sub>x</sub>N<sub>y</sub> film can only be formed when a relatively high output density is applied to a Si<sub>3</sub>N<sub>4</sub> target, a distance between a substrate and a target is short, a batch type apparatus is used that is less subject to the influence of components of gas emitted from a substrate and, further, a substrate with a small amount of emitted gas components is used. We also concluded that with respect to a substrate having a large amount of emitted gas components, a SiO<sub>x</sub>N<sub>y</sub> film could not be stably manufactured using in-line type equipment (continuous system) applicable for mass production in which a distance between a substrate and a target is comparatively long. Therefore, from this observed result and the results of analysis using a quadrupole gas analyzing apparatus, the present inventors concluded that when forming a SiO<sub>x</sub>N<sub>y</sub> film by a sputtering method or ion plating method using in-line equipment applicable for mass production using a substrate with a large amount of emitted gas components without supplying oxygen gas as a reactive gas in the reaction system as an oxygen source,

oxygen generated by degradation of moisture that was present in a substrate or thin film layered body or in a reaction apparatus is incorporated into the film which is growing, and therefore the use of nitrogen gas and not oxygen as a reactive gas is desirable.

*Please replace the first paragraph on page 34, beginning at line 3, with the following amended paragraph:*

Referencial Example 3 Example 2

In order to incorporate a nitrogen component included in the target material into a film under the conditions described in Control 1 (nitrogen/oxygen=8.5), film formation was conducted by raising the RF power (4.5 kW) and increasing the Ar flow ratio (Ar/N/O:400/8.5/1) so that a transmittance of 85% could be maintained.

*Please replace the fourth paragraph on page 42, beginning at line 18, with the following amended paragraph:*

Referencial Example 4 Example 3

A protective coat comprising a single layer of a thickness of 3000 Å was formed under the conditions for forming the second layer according to the above Example 4, with the exception that a first layer was not formed. Thereafter, under the same conditions as in Example 4, an electrode layer, insulating layer, cathode separator, organic EL luminescent layer and counter electrodes were formed on a CF substrate to produce a visual display apparatus.